

WHAT IS CLAIMED IS:

1. A chlorhexidine composition comprising at least one of
 - (i) a salt of chlorhexidine with 2 moles of a first sugar acid, and a microbicidally active quaternary ammonium bromide; and
 - (ii) chlorhexidine, a second sugar acid or a sugar lactone, with at least 2 moles of the second sugar acid or the sugar lactone being present per mole of chlorhexidine, and the microbicidally active quaternary ammonium bromide, wherein
the chlorhexidine composition is water-soluble and in a form of a powder, granules or tablets.
2. The chlorhexidine composition according to Claim 1, wherein the microbicidally active quaternary ammonium bromide comprises at least one alkyl or alkenyl residue with 8 to 18 C atoms and up to three identical or different alkyl residues with 1 to 7 C atoms.
3. The chlorhexidine composition according to Claim 1, wherein the microbicidally active quaternary ammonium bromide comprises cetrimide.
4. The chlorhexidine composition according to Claim 3, wherein
the salt of chlorhexidine comprises a diprotonated dication of a chlorhexidine salt; and
the salt of chlorhexidine and the cetrimide are in a weight ratio in a range of 1:2 to 1:20.
5. The chlorhexidine composition according to Claim 4, wherein the weight ratio is in a range of 1:5 to 1:20.
6. The chlorhexidine composition according to Claim 1, wherein the first sugar acid is selected from the group consisting of gluconic acid, lactobionic acid, D-galactonic acid, L-mannonic acid, D-galacturonic acid, D-gulonic acid, and α -D-heptagluconic acid.
7. The chlorhexidine composition according to Claim 1, wherein the first sugar acid is D(+)-gluconic acid.

8. The chlorhexidine composition according to Claim 3, wherein the salt of chlorhexidine comprises chlorhexidine digluconate.

9. The chlorhexidine composition according to Claim 1, wherein the second sugar acid is selected from the group consisting of gluconic acid, lactobionic acid, D-galactonic acid, L-mannonic acid, D-galacturonic acid, D-gulonic acid, and α -D-heptagluconic acid.

10. The chlorhexidine composition according to Claim 1, wherein the second sugar acid is D(+)-gluconic acid.

11. The chlorhexidine composition according to Claim 1, wherein the sugar lactone is selected from the group consisting of D-galactono- γ -lactone, L-mannonic acid- γ -lactone, D-gulono- γ -lactone, D-gluconolactone, δ -gluconolactone, and α -D-heptagluconic acid- γ -lactone.

12. The chlorhexidine composition according to Claim 3, wherein the sugar lactone comprises δ -gluconolactone; and the chlorhexidine and the δ -gluconolactone are present in a molar ratio of 1:2 to 1:2.2.

13. The chlorhexidine composition according to Claim 3, wherein the chlorhexidine and the cetrimide are in a weight ratio in a range of 1:2 to 1:20.

14. The chlorhexidine composition according to Claim 13, wherein the weight ratio is in a range of 1:5 to 1:20.

15. A method of making a chlorhexidine composition, the method comprising at least one of

mixing a salt of chlorhexidine, a first sugar acid, and a microbicidally active quaternary ammonium bromide, and

mixing chlorhexidine, a second sugar acid or a sugar lactone, and a microbicidally active quaternary ammonium bromide; and

producing the chlorhexidine composition of Claim 1.

16. A method of using a chlorhexidine composition, the method comprising dissolving the chlorhexidine composition of Claim 1 in a liquid containing water to form a solution.

17. The method according to Claim 16, wherein the liquid further comprises up to 2% of an alcohol selected from the group consisting of n-propanol, isopropanol, and ethanol.

18. The method according to Claim 16, further comprising applying the solution to a surface; and disinfecting the surface.

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